REMARKS

The issues outstanding in the Office Action mailed on July 16, 2008, are the double patenting rejection and rejections under 35 U.S.C.§§ 101, 112, 102 and 103. Reconsideration of these issues, in view of the following discussion, is respectfully requested.

DOUBLE PATENTING

The double patenting rejection over copending application 11/572,872 is moot in view of the express abandonment of this application filed on even date. Withdrawal of the rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §§ 101 AND 112

Claims 23 and 30 have been rejected under the 35 U.S.C.§ 112, second paragraph, and under § 101 in view of the non-standard format. The claims haves been reformatted for U.S. practice, and it is submitted that the rejection is moot. Withdrawal of this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-3, 1, 14-17, 22, 25 and 28 have been rejected under 35 U.S.C. 102(b) over Doi et al. '157. Reconsideration of this rejection is respectfully requested.

It is believed that there is a misunderstanding of the disclosure of Doi et al in the Office Action. The Office Action notes the use of alkylbenzene sulfonate ions and assumes that this material is a semiconducting material. However, the materials "used as an organic semiconducting material" in paragraph 76 of the reference, do not include alkylbenezene sulfonates. Instead,

alkylbenezene sulfonate is used as an ionic dopant added to organic polymer conductor film materials not as a semiconductor, itself. The same is true of the other ionic sulfonate dopants disclosed in paragraph 107. For example, polystyrene sulfonate (PSS) is widely known as a conductive dopans disclosed that can be added to polymers like PEDOT in order to create highly conductive films. When brought into solution these ionic sulfonates form an electrolyte. However, they cannot be used as semiconductors themselves. Moreover, Doi does not disclose even that the ionic sulfonate dopant is mixed with the fluorescent polyfluorene semiconductor. Instead these two materials are used in different layers: the polyfluorene is used in the emissive fluorescent layer, whereas the ionic dopant of paragraph 107 is used in the highly conductive film on the charge injection layer (see device description on page 7 and in paragraph 169 of Doi). Accordingly, the reference fails to suggest a composition containing two organic semiconductors, and thus is not anticipated by the reference. Withdrawal this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. §§ 102/103

Claims 1-12, 14-20, and 24-28 have been rejected under 35 U.S.C. 102(b) or in the alternative under U.S.C. 103(a) over Woo et al. '385. Reconsideration of this rejection is respectfully requested. The Office Action cites page 4, lines 10-15 of Woo, which discloses a composition containing a high molecular weight conjugated copolymer of fluorine units and arylamine units having molecular weight of 10,000 or greater. In particular, it is noted that Woo discloses OLED devices comprising a copolymer containing fluorene and triarylamine units. On paged 4, Woo discloses that the amine-containing copolymer can have a weight average molecular weight Mw of 10,000 or greater. On page 4 Woo discloses that the copolymer can also have a degree of polymerization of at least 3, thus, the Office Action argues, implying a lower molecular weight Mw. On page 10, lines 21-24 Woo discloses a polymer blend comprising (a) 1 to 99% of the amine-containing copolymer described above and (b) 99 to 1% of a different polymer. On page 11, lines 9-14 Woo discloses that the polymer (c) can have a degree of polymerization of at least 3.

However, whereas Woo discloses that the amine containing copolymer (a) can have varying molecular weight, Woo does neither disclose nor suggest a polymer blend of two polymers have

different molecular weights. In particular Woo does not disclose or suggest using a blend where one component has a number average molecular weight Mn of at least 5000 and the other component has a Mn of 1000 or less. Thus Woo fails to disclose a composition having all of the elements claimed, and is not anticipatory. In addition, Woo fails to suggest the use of two such semiconducting materials having the same function, i.e. charge transport. The advantage of such a blend is demonstrated by the examples of the present specification, in which the mobility of mixtures containing ingredients with different molecular weights are shown to significantly increase charge mobility, over the single components alone. Such increase of mobility is unexpected, thus further evidencing patentability for the materials of different molecular weights and same function as recited in the present claim 1. Accordingly, it is respectfully submitted that Woo provides no motivation for the one of ordinary skill in the art to prepare a composition of two organic semiconductors with molecular weight, and is submitted that the selection of page 5 of the Office Action are achievable only through hindsight. Reconsideration of this rejection is thus respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-22 and 24-29 have been rejected under 35 U.S.C. 103(a) under Brown et al. '184 taken with Levesque. Reconsideration of this rejection is respectfully requested. Brown discloses a copolymer containing fluorene and triarylamine units, and a composition comprising the polymer and a binder, for use as semiconductors in organic transistors. Levesque on the other hand discloses a light emitting device comprising a polyfluorene as emitter component, wherein said device may also comprise a low molecular weight arylamine compound like TPD as hole transport component. Moreover, as in Woo, the two components in the composition taught by Levesque have different functions from each other (light emitting component and hole transport component). In contract, in the present composition the two compounds both serve as charge transport components, and, as noted above in combination show a higher mobility than each of the single components. This is not suggested by Brown or Levesque

However, the Office Action argues that it was obvious for the skilled person to add the arylamine molecule of Levesque to the polymeric composition of Brown for the purpose of

improving the luminescene of the polymer. Brown does not disclose or suggest using the polymer as luminescent component (in a light emitting device), but instead as charge transport component in a transistor device. Accordingly, there would have been no motivation for ordinary skill in the art combine with the teachings of Brown and Levesque in this matter, inasmuch as these materials are disclosed for different purposes in each reference.

Accordingly, it is respectfully submitted that the references, either singly or in combination, fail to suggest the present claims and withdrawal of the rejections is respectfully requested.

It is respectfully submitted that the present claims 1, is in condition for allowance, and the same is respectfully requested. However, if the Examine has any questions or comments, he is cordially invited to telephone the undersigned number below.

Respectfully submitted,

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Attorney Docket No.: MERCK-3045

Date: December 8, 2008